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CLAIMS:

We claim:
1. In a code-division-multiple-access (CDMA) system employing spread-spectrum modulation comprising a base station (BS) comprising a BS-spread-spectrum transmitter and a BS-spread-spectrum receiver, and a plurality of remote stations, each remote station (RS) comprising an RS-spread-spectrum transmitter and an RS-spread-spectrum receiver, a method comprising the steps of:
transmitting from said BS-spread-spectrum transmitter, a broadcast common-synchronization channel having a common chip-sequence signal, the broadcast common-synchronization channel comprising a frame-timing signal;
receiving at an RS-spread-spectrum receiver of one remote station the broadcast common-synchronization channel, and determining frame timing at said RS-spread-spectrum receiver from the frame-timing signal;
transmitting from an RS-spread-spectrum transmitter of the one remote station an access-burst signal, the access-burst signal comprising a plurality of segments having a plurality of respective power levels;
receiving at said BS spread-spectrum receiver at least one segment of the access-burst signal at a detected-power level;
responsive to receipt of the at least one segment transmitting an acknowledgment signal from said BS-spread-spectrum transmitter;
receiving the acknowledgment signal at said RS-spread-spectrum receiver;
transmitting from said RS-spread-spectrum transmitter, responsive to the receipt of the acknowledgment signal, a spread-spectrum signal comprising data; and
transmitting from said BS-spread-spectrum transmitter, any of data and power control information, to said RS-spread-spectrum receiver.
2. A method as set forth in claim 1, wherein the step of transmitting the access-burst signal comprises transmitting the plurality of segments at sequentially increasing power levels.
3. A method as set forth in claim 1, further comprising the steps of:
transmitting, from said RS-spread-spectrum transmitter, responsive to receipt of the acknowledgment signal, a selected RS-collision-detection (CD) preamble from a plurality of RS-CD preambles;
detecting, at said BS-spread-spectrum receiver, the selected RS-CD preamble;
transmitting, from said BS-spread-spectrum transmitter in response to detecting the selected RS-CD preamble, a BS-CD preamble;
detecting, at said RS-spread-spectrum receiver, the BS-CD preamble; and
transmitting, from said RS-spread-spectrum transmitter, data to said base station.

4. A method as set forth in claim 3, wherein the BS-CD preamble corresponds to the selected RS-CD preamble.
5. An improvement to a code-division-multiple-access (CDMA) system employing spread-spectrum modulation, the CDMA system comprising a base station (BS) and a

plurality of remote stations (RS), the improvement comprising:
a BS spread-spectrum transmitter located at said base station, for transmitting a broadcast common-synchronization channel having a common chip-sequence signal, the broadcast common-synchronization channel comprising a frame-timing signal;
an RS-sprcad-spectrum receiver, located at one of the remote stations, for receiving the broadcast common-synchronization channel, and determining frame timing from the frame-timing signal;
an RS-spread-spectrum transmitter, located the one first remote station, for transmitting an access-burst signal, the access-burst signal comprising a plurality of segments having a plurality of respective power levels;
a BS spread-spectrum receiver at said base station for receiving at least one segment of the access-burst signal at a detected-power level;
said BS-spread-spectrum transmitter for transmitting an acknowledgment signal responsive to receiving the at least one segment;
said RS-spread-spectrum receiver for receiving the acknowledgment signal;
said RS-spread-spectrum transmitter for transmitting a spread-spectrum signal comprising data responsive to the receipt of the acknowledgment signal; and
said RS-spread-spectrum transmitter for transmitting any of data and power-control information, to said RS-sprcad-spectrum receiver.
6. The improvement as set forth in claim 3, wherein said RS-spread-spectrum transmitter sends the segments of the access-burst signal at sequentially increasing power levels.
7. The improvement as set forth in claim 5, wherein:
said RS-spread-spectrum transmitter transmits a selected RS-collision-detection (CD) preamble from a plurality of RS-CD preambles in response to receipt of the acknowledgment signal;
said BS-spread-spectrum receiver detects the selected RS-CD preamble;
said BS-spread-spectrum transmitter transmits a BS-CD preamble in response to detecting the selected RS-CD preamble;
said RS-spread-spectrum receiver detects the BS-CD preamble; and
said RS-spread-spectrum transmitter transmits data to said base station.
8. The improvement as set forth in claim 7, wherein the BS-CD preamble transmitted by the BS-spread-spectrum transmitter corresponds to the selected RS-CD preamble.
9. In a code-division-multiple-access (CDMA) system employing spread-spectrum modulation, the CDMA system comprising a first base station (BS) comprising a first BS-spread-spectrum transmitter and a first BS-spread-spectrum receiver, a second base station comprising a second BS-spread-spectrum transmitter and a second BS-spread-spectrum receiver, and a plurality of remote stations, each remote station (RS) comprising an RS-spread-spectrum transmitter and an RS-spread-spectrum receiver, a method comprising the steps of:
transmitting from said first BS-spread-spectrum transmitter a first broadcast common-synchronization channel having a first common chip-sequence signal, the first broadcast common-synchronization channel comprising a first frame-timing signal;
transmitting from said second BS-spread-spectrum transmitter, a second broadcast common-synchronization channel having a second common chip-sequence signal, the second broadcast common-synchronization channel comprising a second frame-timing signal;
at one remote station, receiving in the RS-spread-spectrum receiver the first broadcast common-synchronization channel, and determining a first frame timing from the first frame-timing signal;
receiving at the RS-spread-spectrum receiver of the one remote station the second broadcast common-synchronization channel, and determining a second frame timing from the second frame-timing signal; responsive to the received common-synchronization channels, determining at said one remote station to transmit to said first base station;
from the RS-spread-spectrum transmitter of the one remote station, transmitting a first access-burst signal, the first access-burst signal comprising a first plurality of segments at a first plurality of respective power levels;
receiving at said first BS spread-spectrum receiver at least one segment of the first access-burst signal at a first detected-power level;
transmitting from said first BS-spread-spectrum transmitter a first acknowledgment signals responsive to the receipt of the at least one segment;
receiving the first acknowledgment signal at the RS-spread-spectrum receiver of the one remote station; and
responsive to the receipt of the first acknowledgment signal, transmitting a first spread-spectrum signal comprising data from the RS-spread-spectrum transmitter of the one remote station.
10. The method as set forth in claim 9, further comprising the step of

transmitting from said first BS-spread-spectrum transmitter, any of data and power-control information, to the RS-spread-spectrum receiver of the one remote station.

11. The method as set forth in claim 9, wherein the step of transmitting the first access-burst signal comprises transmitting the segments at sequentially increasing power levels.

12. The method as set forth in claim 11, further comprising the step of transmitting from said first BS-spread-spectrum transmitter, any of data and power-control information, to the RS-spread-spectrum receiver of the one remote station.

13. The method as set forth in claim 9, further comprising the steps of:
determining, based on any of power levels and probabilities of error, at the one remote station, from the first and the second broadcast common-synchronization channels, to further transmit to said second base station;
transmitting from the RS-spread-spectrum transmitter of the one remote station to said second base station, a second access-burst signal comprising a second plurality of segments at a second plurality of respective power levels;
receiving at said second BS-spread-spectrum receiver at least one segment of the second access-burst signal at a second detected-power level;
transmitting a second acknowledgment signal from said second BS-spread-spectrum transmitter, responsive to the receipt of the at least one segment of the second access-burst signal;
receiving the second acknowledgment signal at the RS-spread-spectrum receiver of the one remote station; and
transmitting a second spread-spectrum signal comprising data from said RS-spread-spectrum transmitter of the one remote station, responsive to the receipt of the second acknowledgment signal, to said second BS-spread-spectrum receiver.

14. The method as set forth in claim 13, further comprising the step of transmitting from said second BS-spread-spectrum transmitter, any of data and power-control information, to the RS-spread-spectrum receiver of the one remote station.

15. The method as set forth in claim 13, wherein the step of transmitting the second access-burst signal comprises transmitting the second plurality of segments at sequentially increasing power levels.

16. The method as set forth in claim 15, further comprising the step of transmitting from said second BS-spread-spectrum transmitter, any of data and power-control information, to the RS-spread-spectrum receiver of the one remote station.

17. A method as set forth in claim 9, further comprising the steps of:
transmitting, from the RS-spread-spectrum transmitter of the one remote station an RS-collision-detection (CD) preamble selected from a plurality of RS-CD preambles responsive to receipt of the first acknowledgment signal;
detecting, at said first BS-spread-spectrum receiver, the selected RS-CD preamble;

transmitting a BS-CD preamble from said first BS-spread-spectrum transmitter, in response to detecting the selected RS-CD preamble;
detecting, at the RS-spread-spectrum receiver of the one remote station, the BS-CD preamble; and
transmitting data to said first base station from the RS-spread-spectrum transmitter of the one remote station.

18. The improvement as set forth in claim 17, wherein the BS-CD preamble corresponds to the selected RS-CD preamble.

19. An improvement to a code-division-multiple-access (CDMA) system employing spread-spectrum modulation, the CDMA system comprising a first base station (BS), a second base station, and a plurality of remote stations (RS), the improvement comprising:
a first BS spread-spectrum transmitter located at said first base station, for transmitting a first broadcast common-synchronization channel having a first common chip-sequence signal common to the plurality of remote stations, the first broadcast common-synchronization channel comprising a first frame-timing signal;
a second BS spread-spectrum transmitter located at said second base station, for transmitting a second broadcast common-synchronization channel having a second common chip-sequence signal common to the plurality of remote stations, the second broadcast common-synchronization channel comprising a second frame-timing signal;
an RS-spread-spectrum receiver, located at one of the plurality of remote stations, for receiving the first and second broadcast common-synchronization channels, and determining a first frame timing from the first frame-timing signal and determining a second frame timing from the second frame-timing signal;

means located at said one remote station, for determining from the first broadcast common-synchronization channel and from the second broadcast common-synchronization channel, to transmit to said first base station based on any of power levels and probabilities of error;
an RS-spread-spectrum transmitter, located at said one remote station, for transmitting a first access-burst signal comprising a first plurality of segments having a first plurality of respective power levels;
a first BS spread-spectrum receiver located at said first base station for receiving at least one segment of the first access-burst signal at a detected-power level;
said first BS-spread-spectrum transmitter for transmitting a first acknowledgment signal, responsive to the receipt of at least one segment of the first access-burst signal;
said RS-spread-spectrum receiver for receiving the first acknowledgment signal; and
said first RS-spread-spectrum transmitter for transmitting a first spread-spectrum signal comprising data responsive to the receipt of the first acknowledgment signal.
20. The improvement as set forth in claim 19, wherein said first BS-spread-spectrum transmitter also is for transmitting any of data and power-control information, to said RS-spread-spectrum receiver.
21. The improvement as set forth in claim 19, wherein said RS-spread-spectrum transmitter sends the segments of the first access-burst signal at sequentially increasing power levels.
22. The improvement as set forth in claim 21, wherein said first BS-spread-spectrum transmitter is for transmitting any of data and power-control information, to said RS-spread-spectrum receiver.
23. The improvement as set forth in claim 19, wherein:
said means further determines to transmit to said second base station based on any of power levels and probabilities of errors determined from the received broadcast common-synchronization channels;
said RS-spread-spectrum transmitter for transmitting to said second base station, a second access-burst signal comprising a second plurality of segments at a second plurality of respective power levels;
said second BS spread-spectrum receiver for receiving at least one segment of the second access-burst signal at a second detected-power level;
said second BS-spread-spectrum transmitter for transmitting to said RS-spread-spectrum receiver a second acknowledgment signal, responsive to the receipt of the at least one segment of the second access-burst signal;
said RS-spread-spectrum receiver for receiving the second acknowledgment signal; and
said RS-spread-spectrum transmitter for transmitting to said second BS-spread-spectrum receiver, a second spread-spectrum signal having data, responsive to the receipt of the second acknowledgment signal.
24. The improvement as set forth in claim 23, wherein said second BS-spread-spectrum transmitter transmits any of data and power-control information, to said RS-spread-spectrum receiver.
25. The improvement as set forth in claim 23, wherein said RS-spread-spectrum transmitter transmits the second access-burst signal with the second plurality of segments having sequentially increasing power levels.
26. The improvement as set forth in claim 25, wherein said second BS-spread-spectrum transmitter transmits any of data and power-control information, to said RS-spread-spectrum receiver.
27. The improvement as set forth in claim 19, wherein:
said RS-spread-spectrum transmitter transmits an RS-collision-detection (CD) preamble selected from a plurality of RS-CD preambles, in response to receipt of the first acknowledgement signal at the one remote station;
if said first BS-spread-spectrum receiver detects the selected RS-CD preamble, said first BS-spread-spectrum transmitter transmits a BS-CD preamble; and
if said RS-spread-spectrum receiver detects the BS-CD preamble, said RS-spread-spectrum transmitter transmits data to said first base station.
28. The improvement as set forth in claim 27, wherein the BS-CD preamble corresponds to the selected RS-CD preamble.
29. A method of transferring data for one a plurality of wireless remote station (RS) handsets through a base station (BS) of a wireless telecommunication network, the base station comprising a BS-spread-spectrum transmitter and a BS-spread-spectrum receiver, the method comprising the steps of:
transmitting a frame-timing signal from said BS-spread-spectrum transmitter over a broadcast common-synchronization channel having a common chip-sequence signal;

receiving the broadcast common-synchronization channel comprising a frame timing signal at an RS-spread-spectrum receiver of the one RS handset;
determining frame timing at an RS-spread-spectrum receiver of the one RS handset from the received frame-timing signal;
transmitting an access-burst signal from an RS-spread-spectrum transmitter of the one RS handset, the access-burst signal comprising a plurality of segments;
receiving at least one segment of the access-burst signal at said BS spread-spectrum receiver;
transmitting an acknowledgment from said BS-spread-spectrum transmitter, in response to the receipt of the at least one segment of the access-burst signal;
receiving the acknowledgment at said RS-spread-spectrum receiver;
transmitting a spread-spectrum signal comprising data from said RS-spread-spectrum transmitter, in response to the receipt of the acknowledgment;
receiving the spread-spectrum signal comprising data at said BS-spread-spectrum receiver; and
forwarding the data from said base station to another network element.

30. The method as set forth in claim 29, wherein:
the step of transmitting the access-burst signal comprises transmitting the segments at a plurality of respective power levels; and the step of receiving at least one segment comprises receiving at least one segment at a detected-power level.

31. The method as set forth in claim 30, wherein the step of transmitting the access-burst signal comprises transmitting the segments at sequentially increasing power levels.

32. The method as set forth in claim 29, further comprising:
transmitting a selected one of a plurality of collision-detection (CD) codes by said RS-spread-spectrum transmitter, in response to receipt of the acknowledgment;

if the BS-spread-spectrum receiver detects the selected CD code from the RS-spread-spectrum transmitter, transmitting a BS-CD code from said BS-spread-spectrum transmitter; and
if the RS-spread-spectrum receiver detects the BS-CD code, transmitting data to said base station, from said RS-spread-spectrum transmitter.

33. A method of transferring data by one of a plurality of wireless handsets, through a wireless telecommunication infrastructure comprising a first base station (BS) and a second base station, the one wireless handset having a remote-station (RS)-spread-spectrum transmitter and an RS-spread-spectrum receiver, the first base station comprising a first BS-spread-spectrum transmitter and a first BS-spread-spectrum receiver, the second base station comprising a second BS-spread-spectrum transmitter and a second BS-spread-spectrum receiver, the method comprising the steps of:
transmitting a first frame-timing signal from the first BS-spread-spectrum transmitter over a first broadcast common-synchronization channel having a first common chip-sequence signal;
transmitting a second frame-timing signal from the second BS-spread-spectrum transmitter over a second broadcast common-synchronization channel having a second common chip-sequence signal;
at the RS-spread-spectrum receiver, receiving the first and second broadcast common-synchronization channels;
at the one wireless handset, based on any of power levels and probabilities of error determined from the first broadcast common-synchronization channel and from the second broadcast common-synchronization channel, determining to transmit to said first base station;
transmitting from the RS-spread-spectrum transmitter a first access-burst signal, in a predetermined relationship to the first frame timing signal, the first access-burst signal comprising a plurality of segments;
receiving at least one segment of the first access-burst signal at said first BS spread-spectrum receiver;
transmitting a first acknowledgment signal from said first BS-spread-spectrum transmitter, in response to receipt of the at least one segment;
receiving at said RS-spread-spectrum receiver the first acknowledgment signal; and

in response to receipt of the first acknowledgment signal, transmitting a first spread-spectrum signal comprising data, from said first RS-spread-spectrum transmitter to said first BS-spread-spectrum receiver.

34. The method as set forth in claim 33, further comprising transmitting data or power control information from said first BS-spread-spectrum transmitter to said RS-spread-spectrum receiver.

35. The method as set forth in claim 33, wherein:

the step of transmitting the first access-burst signal comprises transmitting the first plurality of segments at a plurality of respective power levels; and
the step of receiving at least one segment of the first access-burst signal comprises receiving at least one segment of the first access-burst signal at a detected-power level.
36. The method as set forth in claim 35, wherein the step of transmitting the first plurality of segments comprises transmitting the first plurality of segments at sequentially increasing power levels.
37. The method as set forth in claim 35, further comprising transmitting data or powercontrol information from said first BS-spread-spectrum transmitter to said RS-spread-spectrum receiver.
38. The method as set forth in claim 33, further comprising:
at the one wireless handset, determining from the broadcast common-synchronization channels to subsequently transmit to said second base station, based on any of power levels and probabilities of error;
transmitting a second access-burst signal from the RS-spread-spectrum transmitter, the second access-burst signal comprising a plurality of segments;
receiving at least one segment of the second access-burst signal at said second BS spread-spectrum receiver;
transmitting a second acknowledgment signal from said second BS-spread-spectrum transmitter, in response to the receipt of at least one segment of the second access-burst signal;
receiving the second acknowledgment signal at said RS-spread-spectrum receiver; and
in response to receipt of the second acknowledgment signal, transmitting a second spread-spectrum signal comprising data, from the RS-spread-spectrum transmitter to the second BS-spread-spectrum receiver.
39. The method as set forth in claim 38, further comprising transmitting data or power control information from said second BS-spread-spectrum transmitter to said RS-spread-spectrum receiver.
40. The method as set forth in claim 38, wherein:
the step of transmitting the second access-burst signal comprises transmitting the plurality of segments of the second access-burst signal at a plurality of respective power levels; and
the step of receiving at least one segment of the second access-burst signal comprises receiving at least one segment of the second access-burst signal at a detected-power level.
41. The method as set forth in claim 40, wherein the step of transmitting segments of the second access-burst signal comprises transmitting the segments of the second access-burst signal at sequentially increasing power levels.
42. The method as set forth in claim 40, further comprising transmitting data or power-control information from said first BS-spread-spectrum transmitter to said RS-spread-spectrum receiver.
43. The method as set forth in claim 33, further comprising the steps of:
transmitting an RS-collision-detection (CD) preamble, selected from a plurality of RS-CD preambles, from said first RS-spread-spectrum transmitter in response to receipt of the first acknowledgment signal;
at said first BS-spread-spectrum receiver, detecting the RS-CD preamble;
in response to detection of the RS-CD preamble, transmitting a BS-CD preamble, from said first BS-spread-spectrum transmitter;
detecting the BS-CD preamble at said RS-spread-spectrum receiver; and
in response to detection of the BS-CD preamble, transmitting data from said RS-spread-spectrum transmitter to said base station.
44. The method as set forth in claim 43, wherein the BS-CD preamble corresponds to the selected RS-CD preamble.
45. A method of providing a common packet channel communication service, in a code-division-multiple-access (CDMA) wireless network, the method comprising:
broadcasting a frame-timing signal from a CDMA base station of the network, over a common synchronization channel modulated with a common chip-sequence signal;
deriving a slotted-aloha timing reference from the frame-timing signal receiving over the common packet channel from each of at least one or more of a plurality of remote CDMA stations at least part of one or more access bursts, each comprising a sequence of coded preamble signals transmitted at sequentially increasing discrete power levels, each coded preamble signal being sent in accord with the slotted-aloha timing reference;
selectively authorizing each of said at least one or more remote CDMA stations to access the common packet channel for packet transmissions to the CDMA base station, according to the slotted-aloha timing reference, in response to detection of one or more preambles in one or more received parts of access bursts; and

receiving CDMA packet data transmitted from the one or more selectively authorized remote CDMA stations over the common packet channel at the CDMA base station in accordance with the slotted-aloha timing reference.

46. A method as in claim 45, further comprising transmitting power control signals from the CDMA base station for the one or more of the remote CDMA stations, in response to the one or more parts of access bursts received over the common packet channel.

47. A method as in claim 45, further comprising outputting the received packet data from the CDMA base station to another network element.

48. A method as in claim 45, wherein the step of selectively authorizing comprises: receiving preamble codes from respective remote CDMA stations; and in response, transmitting back acknowledgement signals, each acknowledgment signal comprising a code corresponding to a respective one of the preamble codes.

49. A method as in claim 48, wherein the step of receiving preamble codes comprises:

(a) receiving a first one of a plurality of available preamble codes over the common packet channel in an interval defined in relation to the frame timing signal; and

(b) receiving a second one of the available preamble codes over the common packet channel in an interval defined in relation to the frame timing signal.

50. A method as in claim 49, wherein the step of transmitting back acknowledgement signals comprises:

(i) transmitting back a first acknowledgement signal comprising a first code corresponding to the first preamble code, following receipt of the first preamble code; and

(ii) transmitting back a second acknowledgement signal comprising a second code corresponding to the second preamble code, following receipt of the second preamble code.

51. A method as in claim 45, wherein:

the step of receiving CDMA packet data comprises receiving over the common packet channel a randomly selected collision detection code before each of a plurality of data messages from each selectively authorized remote CDMA station, and

in response to receipt of each of the collision detection codes, the method further comprises transmitting back a corresponding collision detection code.

52. A code-division-multiple-access (CDMA) wireless base station, comprising:

a CDMA transmitter;

a CDMA receiver; and

a controller coupled to the CDMA receiver for responding to signals received via the CDMA receiver and coupled for controlling the CDMA transmitter, such that in operation the CDMA base station is for performing the following steps:

receiving over a common packet channel from a remote station an access burst comprising a sequence of coded preamble signals at sequentially increasing discrete power levels;

detecting a first one of the coded preamble signals of the sequence that is received at an adequate power level;

upon detection of the first coded preamble signal at the adequate power level, transmitting an acknowledgement signal and a power control signal; and

receiving data over the common packet channel from the remote station.

53. A CDMA base station, as in claim 52, wherein the acknowledgement signal comprises a coded signal corresponding to the first coded preamble signal detected at the adequate power level.

54. A CDMA base station, as in claim 52, wherein the base station also transmits a frame-timing signal over a common synchronization channel modulated with a common chip-sequence signal.

55. A CDMA base station, as in claim 54, wherein the base station receives the access burst beginning in one of a plurality of access slots defined in relation to the frame-timing signal.

56. A CDMA base station, as in claim 52, wherein:

the reception of data over the common packet channel from the remote station comprises receiving a coded collision detection signal and receiving message data over the common packet channel from the remote station; and

upon receipt of the coded collision detection signal, the controller causes the CDMA base station to transmit back a corresponding coded collision detection signal.

57. A code-division-multiple-access (CDMA) wireless communication system, comprising:

a network of CDMA base stations, each CDMA base station comprising: a CDMA transmitter; a CDMA receiver; and a controller coupled to the CDMA receiver and the CDMA transmitter to cause each respective base station to:

broadcast a frame-timing signal over a common synchronization channel modulated with a common chip-sequence signal;
receive over a common packet channel from each of a plurality of remote CDMA stations at least part of an access burst comprising a sequence of coded preamble signals transmitted at sequentially increasing discrete power levels and in a predetermined slotted-aloha relationship to the frame-timing signal;
selectively authorize the remote CDMA stations to access the common packet channel for packet transmissions to the respective CDMA base station, on a slotted-aloha basis in response to detection of preambles in the received parts of access bursts from the remote CDMA stations transmit power control signals for the remote CDMA stations, in response to access bursts from the CDMA remote stations at least partially received by the respective CDMA base station;
receive CDMA packet data transmitted from the selectively authorized remote CDMA stations over the common packet channel; and
forward at least some of the received packet data through the network.

58. A code-division-multiple-access (CDMA) wireless communication system, comprising:
a network of CDMA base stations, each respective base station being assigned a respective set of possible coded preamble signals for use in CDMA communication with the respective CDMA base station,
each CDMA base station comprising:
a CDMA transmitter;
a CDMA receiver; and
a controller coupled to the CDMA receiver and the CDMA transmitter to cause each respective base station to perform the following steps:
receiving over a common packet channel from a remote stations at sequentially increasing discrete power levels one of the coded preamble signals assigned to the respective base station selected by the remote station;
detecting a first one of the coded preamble signals of the sequence that is received at an adequate power level;
sending a coded acknowledgement signal corresponding to the detected coded preamble signal;
receiving data over the common packet channel from the remote station; and
forwarding at least some of the received data through the network.